REMARKS

The examiner rejected Claims 1-30 under 35 U.S.C. 102(e) as being anticipated by Herz (US 2001/0014868).

Applicants have amended independent claims 1, 7, 20, and 28, dependent claims 4, 5, 6, 11, 13, 15, 16, 19 and 27, and added new claim 31.

Claim 1

As amended, claim 1 recites: "A computer-implemented method of determining a prioritized listing of offers for use to contact potential customers, the method comprises… generating in a computer an ordered listing of offers from a set of offers, by which to contact a potential customer from a group of potential customers by considering the potential customer independently from others of the potential customers in the group, during generating of the ordered listing of offers for the potential customer…operating on a merged list of offers based upon a budget for contacting the potential customers, with the merged list of offers including offers in the ordered listing of offers for the potential customers in the group of potential customers."

The examiner contends:

> **…Herz teaches a system that selects offers to be presented to a shopper, where said offers are displayed to said shopper in an ordered list (see paragraph 38) and where said offers are ranked (see paragraph 243) from the highest priced offers that the shopper is likely to accept (see paragraph 240). Herz also teaches identifying offers that are appropriate for each shopper independently from other shoppers in a group (see paragraph 24)..**

Applicants contend that Herz neither describes nor suggests "operating on a merged list of offers based upon a budget for contacting the potential customers, with the merged list of offers including offers in the ordered listing of offers for the potential customers in the group of potential customers." Rather, Herz states:

> **… the idea is to maximize expected profit (i.e., the expected quantity sold multiplied by the unit profit) for that shopper or, more formally, to choose an offer j, for the given product that maximizes $\sum_I P_{ij} q_i n_j$ (we're maximizing over j, not summing)where q_i is a quantity that might be sold, n_j is the profit from selling one unit at the price specified by offer j, and P_{ij} is the probability of selling q_i units of offer j to the given shopper. Notice that it is necessary to estimate, for each offer j, the expected quantity $\sum P_{ij} q_i$ (perhaps zero) that the shopper would buy. … Finding the best offer requires taking two things into account--the expected sales from a <shopper, offer> pair, AND the profitability of the offer to the vendor. It is easy to sell lots of product--just sell it below cost but this is rarely a desirable strategy! The most straightforward way to address this problem is to group shoppers together to predict how likely each shopper is to purchase a given offer (which includes product, price and promotion), and then use a separate optimization method to determine which offers to make. In mathematical terms, profit=q(V,X) po (V,X)=quantity sold times profit, where profit, n, is a known function of the shopper, V, and offer, X, and the quantity sold, q, is a function which needs to be estimated.**[1]

Note that, as the examiner states in the passage quoted *supra*, Herz attempts to locate the optimum price point at which a shopper will purchase a product. Nowhere in this passage does Herz describe or suggest operating on a merged list of offers based upon a budget for contacting the potential customers.

Herz does describe constraints, but this is in the context of joint promotions:

> **It is…extremely important for certain constraints to be mutually agreed upon and thus predetermined by the vendors which may be presented in a joint promotion. Such constraints could include: minimum thresholds for user traffic (as a protection for higher traffic vendors), non-competitive market niches, reasonably equivalent product quality or value. If a different (lower) traffic site wishes to be jointly promoted with a higher traffic site, it is useful to identify similar product/industry and automatically extrapolate and relative traffic volume exchanges a "market rate" for the present exchange as compensation to the higher traffic site.** [2]

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[1] Herz, Paragraph [0240]
[2] Id., Paragraph [0250]

Again, nowhere does Herz describe or suggest operating on a merged list of offers based upon a budget for contacting the potential customers. Claim 1 is therefore not anticipated by Herz.

Claim 4

The examiner contends "**...Herz teaches identifying offers that are appropriate for a shopper (See paragraph 24).**"

The Applicants answer that claim 4 recites "***operating*** [not merely identifying] on the set of offers for each member of the group of potential customers." [Emphasis added.] Herz states, in the passage referred to by the examiner:

> **The primary functions of the system for the automatic determination of customized prices and promotions 100 are (1) to *identify* offers that are appropriate for each shopper, (2) to *help* the shopper become informed about these available offers, and (3) to *facilitate* any or all of the necessary transactions, such as electronic ordering or payment, if the shopper decides to accept an offer. The present system for the automatic determination of customized prices and promotions 100 concerns functions (1) and (2).**[3]

Herz neither describes nor suggests an operation on a set of offers for a member of the group of potential customers. Claim 4 is therefore not anticipated by Herz.

Claim 5

The examiner contends "**...Herz teaches automatically selecting offers to maximize vendor profits where said offers are ranked (i.e. "producing an alternative ordered listing of offers having N offers; see paragraphs 236, 243).**"

The Applicants answer that claim 5 recites "producing an alternative ordered listing of offers having N offers...if a number of offers exceeds a number N of offers allocated for a potential customer". Nowhere does Herz describe or suggest a number of offers allocated for a potential customer. Claim 5 is therefore not anticipated by Herz.

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[3] Id., Paragraph [0024], emphasis added

Claim 6

The examiner contends " **...Herz teaches identifying offers that are appropriate for each shopper (see paragraph 24) and that Herz predicts how likely each shopper from a group of shoppers is to purchase a given offer (see paragraph 240).**"

The Applicants answer that claim 6 recites "generating the ordered listing of offers is performed independently for a potential customer in the group of potential customers to produce a list for each potential customer." Herz states in the passage referred to by the examiner:

> **Once one has estimated q(V,X) by clustering similar shoppers and offers together (as described above) and using the expectation that similar shoppers will buy similar quantities of similar offers, then profit can be maximized directly by the obvious method of seeing what V and X make the profit largest.**[4]

That is, in order for Herz to realize the stated goal of maximizing profit, Herz must provide an estimate of a function q by clustering similar shoppers and offers together, as opposed to generating an ordered listing of offers independently for a potential customer. Claim 6 is therefore not anticipated by Herz.

Claims 7, 20, and 28

Claims 7, 20, and 28 are valid for the same reasons that claim 1 is valid.

Claims 8, 9, 21, 22, and 29

The examiner contends "**...the list presented to shopper in the Herz system is a subset of a list, where only the offers relevant to each shopper are selected in said list (see paragraph 252).**"

The Applicants answer that claim 8 recites "producing a proposed solution having an ordered listing of N offers where N is the lesser of the total remaining offers and the maximum number of offers allowed for the customer." Nowhere does Herz describe or suggest a number of offers allowed for the customer. Claim 8 is therefore not anticipated by Herz.

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[4] Id., Paragraph [0240]

Further, claim 9 recites "the proposed solution is represented as a bit string of a length that is equal to the total of the remaining offers." Herz states:

> **A hierarchical cluster tree imposes a useful organization on the collection of offers available for browsing by a shopper... The shopper first chooses one of the highest level (largest) clusters from a menu, and is presented with a menu listing the subclusters of said cluster, whereupon the shopper may select one of these subclusters. The system locates the subcluster, via the appropriate pointer that was stored with the larger cluster, and allows the shopper to select one of its subclusters from another menu. This process is repeated until the shopper comes to a leaf of the tree, which yields the details of an actual offer. Hierarchical trees allow rapid selection of one offer from a large set. In ten menu selections from menus of ten items (subclusters) each, one can reach 10.sup.10=10,000,000,000 (ten billion) items.**[5]

Although Herz proposes a hierarchical cluster tree representation of offers, Herz does not describe nor suggest a bit string of length equal to a number of remaining offers. Claim 9 is therefore not anticipated by Herz.

Claim 20 is equivalent to claim 8, and claims 21 and 29 are equivalent to claim 9, and are therefore not anticipated by Herz for the same reasons.

Claims 10, 23, and 30

The examiner contends "**... Herz teaches selecting from a group of offers a subset of offers (i.e. "M") to display to a shopper (see paragraph 252) and Herz also selects the one offers from a list of n offers (i.e. "S") which the shopper's interest is estimated to be highest.**"

The Applicants answer that claim 10 recites "the proposed solution is checked against rules of the form (M,S), meaning ***at most*** M offers from set S can be sent to a customer." [Emphasis added.] Note that the contention that Herz merely teaches a subset of offers does not render claim 10 unpatentable, as claim 10 describes ***rules*** stating that at most M offers from a set S can be sent to a customer. Claim 10 is therefore not anticipated by Herz.

Claims 23 and 30 are equivalent to claim 10 and are therefore not anticipated by Herz for the same reasons.

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[5] Id., Paragraph [0252]

Claims 11 and 24

The examiner contends "**... Herz teaches in paragraph 246 adjusting the offers send to shoppers by sending alternative version of said offers.**"

The Applicants answer that claim 11 recites "determining a number of bits T > M from the set S that indicate offers should be sent in the proposed solution...generating new alternative proposed solutions, each proposed solution containing new alternative offers, wherein a new alternative offer is represented in a bit string by setting T-M number of bits that are not a part of the set S, and which immediately follow a rightmost one bit R1 in the proposed solution."

Again, Herz does not describe nor suggest a bit string of length equal to a number of remaining offers. Herz therefore cannot describe or suggest determining a number of bits T > M from the set S that indicate offers should be sent in the proposed solution. Claim 10 is therefore not anticipated by Herz.

Claim 24 is equivalent to claim 11, and is therefore not anticipated by Herz for the same reasons.

Claims 12-19 and 25-27

Claims 12-19 and 25-27 depend from claims which have been shown to have been unanticipated by Herz and are not anticipated for the same reasons as the claims from which they depend.

It is believed that all the rejections and/or objections raised by the examiner have been addressed.

In view of the foregoing remarks, applicant respectfully submits that the application is in condition for allowance and such action is respectfully requested at the examiner's earliest convenience.

All of the dependent claims are patentable for at least the reasons for which the claims on which they depend are patentable.

Canceled claims, if any, have been canceled without prejudice or disclaimer.

Any circumstance in which the applicant has (a) addressed certain comments of the examiner does not mean that the applicant concedes other comments of the examiner, (b) made arguments for the patentability of some claims does not mean that there are not other good reasons for patentability of those claims and other claims, or (c) amended or canceled a claim does not mean that the applicant concedes any of the examiner's positions with respect to that claim or other claims.

The required fee **$1110** for the Petition for Extension of Time and the Excess claim fee of **$52** are being paid concurrently on the electronic filing system by way of deposit account authorization. Please apply any other charges or credits to deposit account 06-1050, referencing attorney docket no. 10235-0026001.

Respectfully submitted,

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